NEW MEXICO
ENVIRONMENT DEPARTMENT

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BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

Certified Mail – Return Receipt Requested

February 21, 2018

Mr. John Malvig, Operations Director
Glorieta Camps
Post Office Box 8
Glorieta, NM 87535

Re: Glorieta Camps, Minor, Individual Permit; SIC 4952; NPDES Compliance Evaluation Inspection; NPDES Permit No. NM0028088; Inspection Date: January 24, 2018

Dear Mr. Malvig:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Further explanations and problems noted during this inspection are discussed on the completed form and checklist of this inspection report. Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

David Long, Enforcement Coordinator
Environmental Protection Agency, Region 6
NPDES Enforcement Branch (6EN-WM)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Sarah Holcomb, Program Manager
New Mexico Environment Department
Surface Water Quality Bureau (N2050)
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

David Long (Long.David@epa.gov) is USEPA Region 6's Acting NPDES Enforcement Coordinator at the above address. If you have any questions about this inspection report, please contact Sandra Gabaldón at 505-827-1041 or at Sandra.gabaldon@state.nm.us.

Sincerely,

/s/ Sarah Holcomb

Sarah Holcomb
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
David Long, USEPA (6EN-WM) by e-mail
Amy Andrews, USEPA (6EN-WM) by e-mail
David Esparza, USEPA (6EN-WM) by e-mail
Brent Larsen and Tung Nguyen, USEPA (6WQ-PP) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Robert Italiano, NMED District II by e-mail
Eric Hall, NMED, UOCP by email

Chris Rivera, Operator, Glorieta Camps by e-mail chris@glorieta.org

SH/sg

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	Transaction Code	2	NPDES	11	yr/mo/day	17	Inspec. Type	18	Inspector	19	Fac Type	20
	N	5	NM0028088		180124		C		S		1	

Remarks: GLORIETA CAMPS MINOR

67	Inspection Work Days	69	70	Facility Evaluation Rating	71	BI	72	QA	73	74	75	Reserved	80
	1		2			N		N					

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
I-25 North to Exit 299 (Pecos/Glorieta); Left at intersection, through gate, then left and follow road past maintenance area to WWTP.

Entry Time /Date
0910 Hours / January 24, 2017

Permit Effective Date
August 1, 2013

Exit Time/Date
1230 Hours / January 24, 2017

Permit Expiration Date
July 31, 2018

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Chris DeWitt, Grounds Manager / (505) 919-9157
John Malvig, Operations Director / (717) 673-6267
Chris Rivera, WWTP Operator NM Certified Level II
Robert Gott, Contract Operator NM Certified Level IV

Other Facility Data

SIC: 4952

GPS:
N 35.58573
W -105.76460

Name, Address of Responsible Official/Title/Phone and Fax Number
Mr. Anthony Scott, Executive Director / (210) 844-9945
Glorieta Camps
Post Office Box 8
Glorieta, New Mexico 87535

Contacted: Yes [ ] No [*]

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	U	Flow Measurement	U	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
M	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	M	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. **Please see further explanations and checklist for further details of Compliance Evaluation Inspection.**

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Sandra Gabaldón /s/ *Sandra Gabaldón*	NMED / SWQB / 505-827-1041 / 505-827-0160	February 21, 2018
Signature of Management QA Reviewer ***/s/ Sarah Holcomb, Program Manager*** **Sarah Holcomb, Program Manager**	**Agency/Office/Phone and Fax Numbers** **NMED / SWQB / 505-827-2798**	**Date** **February 21, 2017**

GLORIETA CAMPS WASTEWATER TREATMENT PLANT	PERMIT NO. NM0028088

SECTION A – PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED _)*

DETAILS:

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	☒ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	☐ Y ☐ N ☒ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	☒ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED	☒ Y ☐ N ☐ NA

SECTION B – RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED NO)*

DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. Operator is calculating their loading and geomean incorrectly.	☐Y ☒ N ☐ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	☒S ☐ M ☐ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	☒ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	☒ Y ☐ N ☐ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	☒ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	☒ Y ☐ N ☐ NA
e) DATES AND TIMES OF ANALYSES.	☒ Y ☐ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	☒ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.	☒ S ☐ M ☐ U ☐ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	☒ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	☐ Y ☒ N ☐ NA

SECTION C – OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES)*

DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED.	☐ S ☒ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED.	☐ S ☒ M ☐U ☐ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED .	☒ S ☐ M ☐ U ☐ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	☐ S ☐ M ☒ U ☐ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE	☐ S ☒ M ☐ U ☐ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	☐ S ☐ M ☒U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	☐ S ☐ M ☒ U ☐ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	☒Y ☐ N ☐ NA

GLORIETA CAMPS WASTEWATER TREATMENT PLANT	PERMIT NO. NM0028088

SECTION C – OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☐ Y ☐ N ☐ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☐Y ☐ N ☒ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☐ N ☒ NA

SECTION D – SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	☒ Y ☐ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	☒ Y ☐ N ☐ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	☒Y ☐ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	☒ Y ☐ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☒ Y ☐ N ☐ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	☒ Y ☐ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☐ Y ☐ N ☒ NA

SECTION E – FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE: 90° V-notch Weir	☒Y ☐ N ☐ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	☒ Y ☐ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☒ Y ☐ N ☐ NA
4. CALIBRATION FREQUENCY ADEQUATE.	☐Y ☒ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☐ Y ☒ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☐ Y ☒ N ☐ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☒ Y ☐ N ☐ NA
6. HEAD MEASURED AT PROPER LOCATION.	☒ Y ☐ N ☐ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES)*
DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)*	☒ Y ☐ N ☐ NA

GLORIETA CAMPS WASTEWATER TREATMENT PLANT	PERMIT NO. NM0028088

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. 100 % OF THE TIME. ☐ Y ☒ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. __ % OF THE TIME. ☐ Y ☐ N ☒ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME BioAquatics Hall Environmental

LAB ADDRESS: 2501 Mayes Rd, Ste 100; Carrollton, TX 4901 Hawkins St., NE; Albuquerque, NM

PARAMETERS PERFORMED Whole Effluent Toxicity (WET) BOD, TSS, E. coli

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	None	None	None	None	None	None	

RECEIVING WATER OBSERVATIONS: Minimal effluent discharge to Glorieta Creek is clear.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: N/A (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED __).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☐ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☐ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☐ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☐ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☐ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☐ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☐ NA

Glorieta Camps Wastewater Treatment Plant
NPDES Permit No. NM0028088
Compliance Evaluation Inspection
January 24, 2018

INTRODUCTION

A Compliance Evaluation Inspection (CEI) was conducted at the Glorieta Camps Wastewater Treatment Plant (WWTP) in Glorieta, New Mexico, January 24, 2017, by Ms. Sandra Gabaldon and Mr. Daniel Valenta of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB), Point Source Regulation Section (PSRS). Glorieta Camps WWTP is classified as a minor industrial discharger under the federal Clean Water Act (CWA), Section 402 National Pollutant Discharge Elimination System (NPDES) permit program. The WWTP has a design capacity of 0.40 million gallons per day (MGD) and is assigned NPDES permit number NM0028088.

The WWTP discharges effluent into the Glorieta Creek, thence into the Pecos River. Both waterbodies are classified in Segment 20.6.4.217 NMAC of the Pecos River Basin *(State of New Mexico Standards for Intrastate and Interstate Surface Waters, as amended August 11, 2017).* The designated uses are domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact; and public water supply on the main stem of the Pecos river. The Glorieta Creek (Perennial Prt of Pecos River to Glorieta Camp WWTP) is listed in the 303(d) Integrated Report (IR) for nutrient/eutrophication for the designated use of high quality coldwater aquatic life. IR Category 5/5B means it is impaired for one or more designated or existing uses and a review of the water quality standard will be conducted. AUs (assessment units) are listed in this category when it is possible that water quality standards are not being met because one or more current designated use is inappropriate. After a review of the water quality standard is conducted, a Use Attainability Analysis (UAA) will be developed and submitted to USEPA for consideration, or the AU will be moved to IR Category 5A and a TMDL will be scheduled. Currently, the WWTP is monitoring both Total Phosphorus (TP) and Total Nitrogen (TN) in their permit. With their permit up for renewal in the next year, the facility may have limitations for both TN and TP.

On January 24, 2018 the inspectors arrived at 0910 hours and conducted an entrance interview on-site with Chris DeWitt, Grounds Manager. Mr. DeWitt contacted the Director of Operations, Mr. John Malvig. Mr. Malvig in turn contacted Mr. Robert Gott. Mr. Gott arrived at the facility and we continued our inspection. The inspectors made introductions, and Ms. Gabaldon presented her credentials to Mr. Malvig and discussed the purpose of the inspection. An exit interview to discuss preliminary findings of the inspection was completed on site with Mr. Robert Gott and Mr. Chris Rivera, who arrived during the inspection.

The NMED performs a specific number of CEI's annually for the United States Environmental Protection Agency (USEPA). The purpose of this inspection is to provide the USEPA with information to evaluate the permittee's compliance with their NPDES permit. The enclosed

inspection report is based on verbal information supplied by the permittee's representatives, observations made by the NMED inspector, and a review of records maintained by the permittee and/or NMED. Findings of the inspection are detailed in the attached EPA form 3560-3 and in the narrative Further Explanations section of this report.

TREATMENT SCHEME:

Domestic wastewater from Glorieta Camps and the community of Glorieta (approximately 3,000 during the summer) is conveyed to an activated sludge/extended aeration system with ultraviolet disinfection.

Raw wastewater enters the facility headworks via gravity flow. Peak load periods typically occur between 0700 and 0900 hours. The headworks consist of a small three-channel influent grit chamber, manual bar screen with two-inch gaps, followed by a second screen with ½ inch gaps. Debris, trash and other materials collected on the bar screens is removed and placed into an onsite trash barrel, dumped into a trash compactor and eventually transported to a landfill for final disposal. The flow enters a Parshall flume where it merely flows through the first splitter box and then flows to a second splitter box before reaching a manhole where valves direct it to the aeration basin.

The aeration basin consists of three rings with rotating disc aerators. The flow moves through the basin in series fashion, entering the outer ring and exiting out of the inner ring. Wastewater flows can be manipulated between the rings for maximum efficiency. For instance, when influent volumes are low, only the inner ring is utilized. Manipulation occurs through the use of turning on/off valves within the aeration basin. The aeration basin also receives leachate from two separate sludge bed underdrain systems that are combined prior to reaching the basin.

Wastewater exits the inner ring of the aeration basin and flows into a covered clarifier unit. Return Activated Sludge (RAS) is pumped from the clarifier back into the outer ring of the aeration basin. After leaving the clarifier, water flows through a pipeline that travels along the west side over Glorieta Creek.

After UV disinfection, the effluent flow is measured by a 90˚ V-notch weir and staff gage with a Stevens electronic totalizer meter. The disinfected effluent cascades down a series of concrete steps for approximately 25 feet, then into the Glorieta Creek.

SLUDGE MANAGEMENT:

Waste Activated Sludge (WAS) is sent to the Imhoff tanks. WAS is pumped back from the clarifier into the two Imhoff tanks that are now used as sludge thickeners. Following the Imhoff tanks, sludge is transported to the sludge drying beds.

Sludge is periodically removed from the drying beds and sent to the Caja del Rio Landfill for final disposal.

Glorieta Camps Wastewater Treatment Plant
NPDES Permit No. NM0028088
Compliance Evaluation Inspection
January 24, 2018

Further Explanations

Section A – Permit Verification – Overall Rating "Satisfactory"

The permit expires July 31, 2017. The permittee is required to submit a renewal application 180 prior to expiration of their permit in order to have their permit administratively continued. The permittee submitted their application to USEPA on January 31, 2018.

Section C – Operations and Maintenance Evaluation – Overall Rating of "Unsatisfactory"

Permit Requirements for Operation and Maintenance:

As stated in Part III, Section B.3.a.:

> *a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with conditions of this permit.*
>
> *b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with conditions of this permit.*

Utility Operator Certification Regulations, *NMAC 20.7.4, effective January 17, 2017* states:

CERTIFICATION GENERAL PROVISIONS:

> *A. It is unlawful to operate or allow the operation of a public water supply system or public wastewater facility unless the system or facility is operated by or under the supervision of a certified operator who meets or exceeds the appropriate level of certification required to operate the system or facility.*
> *B. Separate certification is required for the operation of public water supply systems and public wastewater facilities.*

C. The name(s) of the certified operator(s) employed by a public water supply system or public wastewater facility must be on file at all times with the department. A certified operator may be replaced with another certified operator of the required level at any time. The owner shall notify the department in writing of the name of the new certified operator within thirty days after the replacement of the certified operator.

D. The department may issue certifications restricted to distribution systems or collection systems.

Findings:

This facility was constructed in 1981-82. It is approximately 36 years old. Glorieta Camps and the community of Glorieta are in dire need of a new wastewater treatment plant. The rotating disc aerators are obsolete and maintaining them is nearly impossible. Finding replacement parts for this system is becoming increasingly difficult for the operators. Glorieta Camps must invest in this system to address pending nutrient requirements and to avoid failure of the system. prior to a catastrophic event occurring. There are various funding options available for the WWTP. It is up to the Board of Directors to ensure that this facility is treating their raw sewage to an optimum level to meet the New Mexico Water Quality Standards and their National Pollutant Discharge Elinimation (NPDES) permit requirements. This facility is discharging into Glorieta Creek, which is documented in the 2016-18 303(d)/305(b) Integrated report as not meeting standards and uses for high quality cold water aquatic life. The permit will be renewed in 2018 and EPA will likely require limitations on nutrients. To meet these new limitations, the permittee needs to evaluate various tertiary technologies available to remove both TN and TP.

The concrete at this facility is showing its age as well. There are various cracks and spalling that needs to be addressed as soon as possible.

This facility has not written their Pollution Prevention Plan which is required to be written within 12 months of the effective date of this permit, August 1, 2013. The Pollution Prevention Plan gives the facility an opportunity to evaluate the efficiency and extending the useful life of the plant. The Pollution Prevention Plan should include:

a. The influent loadings, flow and design capacity;

b. The effluent quality and plant performance;

c. The age and expected life of the wastewater treatment facility's equipment;

d. Bypasses and overflows of the tributary sewerage system and treatment works;

e. New developments at the facility;

f. Operator certification and training plans and status;

g. The financial status of the facility;

h. Preventative maintenance programs and equipment conditions and;

i. An overall evaluation of conditions at the facility.

No adequate alarm system for power or equipment failures is available at this facility. This **repeat finding** has occurred since 2001. The permittee has not addressed this issue.

There is no spare parts list available for this facility.

The Trojan UV3000 PTP system used for disinfection currently has an intensity of 0.6 with 63,019 hours of usage. According to the Trojan UV3000 PTP system manual:

a. *"A 3 character display that indicates UV intensity in milliwatt per square centimeter (mW/cm2). This display will flash when the intensity drops below the Low UV Intensity Alarm setpoint.*

b. *A 5 character display that indicates elapsed time in hours. The Elapsed Time display will flash when the display reading is between 12,000 and 12,500 hours and it will also flash for each period of 12000 hours following the 12,000 hour mark; i.e. the display will flash from 12,000-12,500 hours, 24,000 –24,500, 36,000 – 36,500..., until the display reaches 65535 hours, at which point the hour counter automatically resets to 0 hours. The flashing period indicates the lamps will need to be changed in the near future.*

The UV display for UV intensity does not currently have an alarm set point. The UV intensity on this date was 0.6 mW/cm2. This value is well below the recommended intensity of 1.6 mW/cm2. The hours on the UV system is 63,019. The lamps should be changed every 12,000-12,500 hours.

Glorieta Camps currently has contracted Level IV operator, Mr. Robert Gott. Mr. Gott is not a full-time employee. According to the Director of Operations, Mr. John Malvig, Mr. Gott is usually at the WWTP two to three days out of the week. According to the New Mexico Utility Operator Certification Regulations, *NMAC 20.7.4, effective January 17, 2017*, a secondary aerated system such as Glorieta Camps is required to have a Wastewater Level III operator on site. The regulations further state that a wastewater operator Level III is required to do BOD and TSS sampling. Mr. Rivera is currently doing the sampling and analysis (BOD, TSS, E.coli, Oil & Grease) as a wastewater operator Level II.

Section E – Flow Measurement – Overall Rating of "Unsatisfactory"

Permit Requirements for Flow Measurement:

Part III, Section C.6 states:

> *Appropriate Flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.*

Findings:

The permittee does not calibrate their instantaneous totalizer against their primary device on at least a monthly basis. The operator stated he has the totalizer calibrated by an outside contractor (Yukon Associates) bi-annually.

The facility has a 90° V-notch weir at their discharge point. They also utilize an instantaneous totalizer and a staff gage. On the day of the inspection, the staff gage was reading .10' and the instantaneous totalizer was reading 2.915 USG/m (.003 MGD). Using the ISCO Open Channel Flow Measurement Handbook to calculate the flow –

Calculating the flow:

$$MGD = 1.616\ H^{2.5}$$
$$MGD = 1.616\ (.10)^{2.5}$$
$$MGD = .005$$

Comparing the totalizer and the calculation used for the 90° V-notch for % error:

$$(.003 - .005) \times 100 / .005 = -40.0\%$$

Permit Requirements for Laboratory – Overall rating of "Marginal":

The permit requires, in Part III.C.5.c. Monitoring Procedures:

> *An adequate analytical quality control program, including the analyses of sufficient standards, spikes and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.*

Findings for Laboratory:

In review of the bench sheets provided by the permittee for November 2017, it appears that the facility is not doing at least 10% duplicate sampling.

DMR REVIEW
NOVEMBER 2017

Discharge Monitoring Report Calculation Check – November 2017

The DMR calculation check was conducted for the Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) were reviewed for the month of November 2017.

Concentration values are mg/l; loading values are in pounds per day (BOD & TSS). The permit requires a grab sample of effluent collected twice per month for BOD, and TSS.

Date:	**Flow, MGD***	**BOD Concentration**	**BOD_5 Loading**	**TSS Conc.**	**TSS Loading**
11/08/2017	6750 gpd = .00675 MGD	2.26 mg/L	.1272 lbs/d		
11/15/2017	4030 gpd = .00403 MGD	2.16 mg/L	.0726 lbs/d		
11/07/2017	8670 gpd = .00867 MGD			1 mg/L	.0723 lbs/d
11/14/2017	9820 gpd = .00982 MGD			2.2 mg/L	.1802 lbs/d
SUM:		**4.42 mg/L**	**.1998 lbs/d**	**3.2 mg/L**	**.9032 lb/d**
30-d Average		**2.21 mg/L**	**.1000 lbs/d**	**1.6 mg/L**	**.4516 lbs/d**
7-d average		**2.26 mg/L**	**.1272 lbs/d**	**2.2 mg/L**	**.723 lbs/d**

DMR REPORTED VALUES NOVEMBER 2017				
	30-d Avg lbs/d	7-Average lbs/d	30-d Avg mg/l	7-day Avg mg/l
BOD:	0.12 lbs/d	0.16 lbs/d	2.21 mg/l	2.28 mg/l
TSS:	1.25 lbs/d	1.84 lbs/d	1.63 mg/l	2.25 mg/l

CALCULATIONS:

Loading Calculation:

Flow on the day of sampling, MGD x concentration (mg/l) X 8.34 (lbs/gal) = Loading

Concentration Calculation:

Adding all values for the month; divide by the number of values added equals the 30-day average concentration (mg/L)

For example: 2.26 + 2.16 = 2.21 mg/L

Daily Max - Concentration:

The highest concentration value from all samples taken for the month.

Calculating E. coli Geometric Mean (Provided as reference, no DMR check completed):

E. coli bacteria concentration is the number of colonies of E. coli bacteria per 100 milliliters effluent. E. coli bacteria daily average is the geometric mean of the E. coli samples collected in a calendar month.

1. Calculate the logarithm for each sample result.
2. Calculate the arithmetic average of the logarithms.
3. Take the antilog of the arithmetic average of the logarithms. This is the geometric mean.

***Flow information was taken from the permittee's log. Flow in GPD was converted to MGD.**

NMED/SWQB
Official Photograph Log
Photo # 1

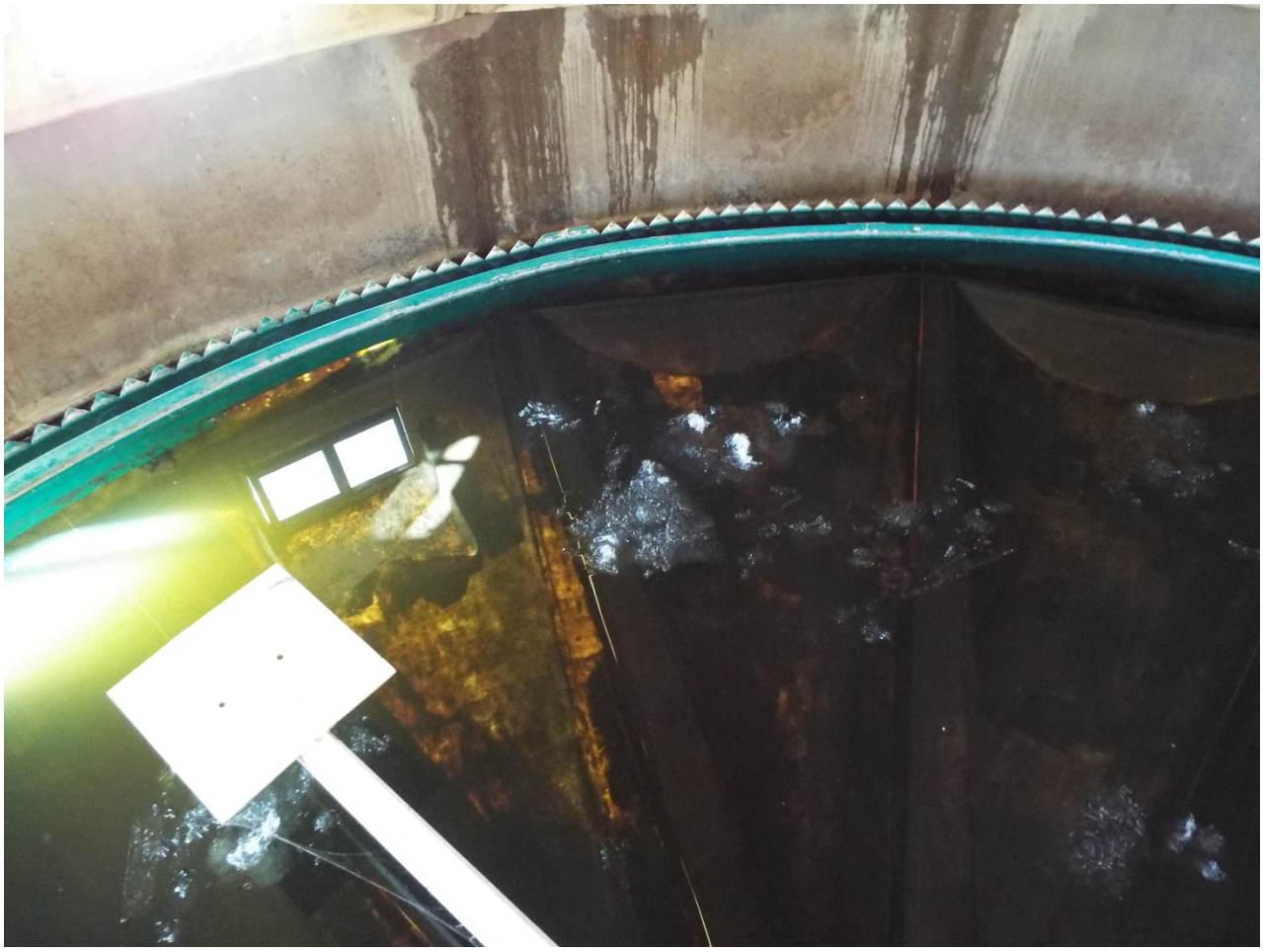
Photographer: Daniel Valenta	Date: January 24, 2017	Time: 1057 Hours
City/County: Glorieta/Santa Fe		
Location: Glorieta Camps WWTP		
Subject: 3-ring aeration basin with rotating disc aerators		

NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: Daniel Valenta	Date: January 24, 2017	Time: 1058 Hours
City/County: Glorieta/Santa Fe		
Location: Glorieta Camps WWTP		
Subject: Enclosed clarifier		

NMED/SWQB
Official Photograph Log
Photo # 3

Photographer: Daniel Valenta	Date: January 24, 2017	Time: 1059 Hours
City/County: Glorieta/Santa Fe		
Location: Glorieta Camps WWTP		
Subject: Inside enclosed clarifier.		



NMED/SWQB
Official Photograph Log
Photo # 4

Photographer: Daniel Valenta	Date: January 24, 2017	Time: 1148 Hours
City/County: Glorieta/Santa Fe		
Location: Glorieta Camps WWTP		
Subject: Effluent flow totalizer		

NMED/SWQB
Official Photograph Log
Photo # 5

Photographer: Daniel Valenta	Date: January 24, 2017	Time: 1148 Hours
City/County: Glorieta/Santa Fe		
Location: Glorieta Camps WWTP		
Subject: Effluent flow staff gauge